DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HEAD POND	Lake Area (ha):	35.04
Town: BERLIN	Maximum depth (m):	2.4
County: Coos	Mean depth (m):	0.8
River Basin: Connecticut	Volume (m³):	284000
Latitude: 44°31'02" N	Relative depth:	0.4
Longitude: 71°13'38" W	Shore configuration:	1.00
Elevation (ft): 1069	Areal water load (m/yr):	19.36
Shore length (m): 1800	Flushing rate (yr ⁻¹):	23.90
Watershed area (ha): 1274	1.0 P retention coeff.:	0.48
% watershed ponded:	0.0 Lake type: n	atural

BIOLOGICAL:	27 January 2002	22 August 2001
DOM. PHYTOPLANKTON (% TOTAL) #1	UROGLENOPSIS>99%	DINOBRYON 40%
#2		CHRYSOSPHAERELLA 35%
#3		
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		4.55
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 96%	KERATELLA 27%
#2		POLYARTHRA 21%
#3		NAUPLIUS LARVA 21%
ROTIFERS/LITER	543	387
MICROCRUSTACEA/LITER	20	236
ZOOPLANKTON ABUNDANCE (#/L)	563	656
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		2.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	8.5	7.3
BACTERIA (E. coli, #/100 ml) #1		1
#2		1
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:			HEAD PONI BERLIN)	
	27 January 2002		22 August 2001		
DEPTH (m)	1.5		1.5		
pH (units)	6.4		6.8		
A.N.C. (Alkalinity)	5.6		4.0		
NITRATE NITROGEN	0.08		< 0.05	1.00	
TOTAL KJELDAHL NITROGEN	0.30		0.60		
TOTAL PHOSPHORUS	0.010		0.009		
CONDUCTIVITY (µmhos/cm)	73.3		48.8		
APPARENT COLOR (cpu)	23		37		
MAGNESIUM			0.82		
CALCIUM			2.4		
SODIUM			4.7		
POTASSIUM			0.50		
CHLORIDE	8		6		
SULFATE	12		5		
TN : TP	38		67		
CALCITE SATURATION INDEX			3.5		

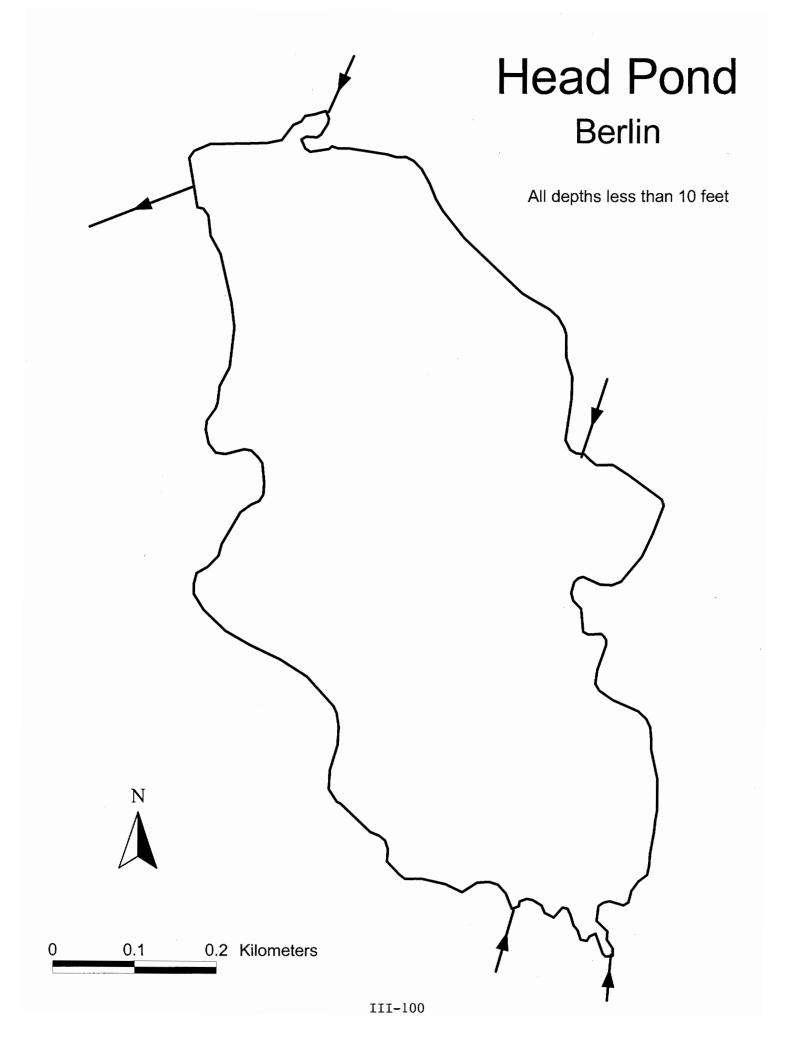
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2001

	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
i	**	2	6	1	9	Meso.

COMMENTS:

- 1. Previously surveyed in 1987.
- 2. This is a shallow pond with very abundant plant growth.
- 3. Summer plankton was varied (14 phytoplankton and 14 zooplankton genera observed) and the zooplankton were numerous.



FIELD DATA SHEET

LAKE: HEAD POND

DATE: 08/22/2001

TOWN: BERLIN

WEATHER: Partly cloudy & cool

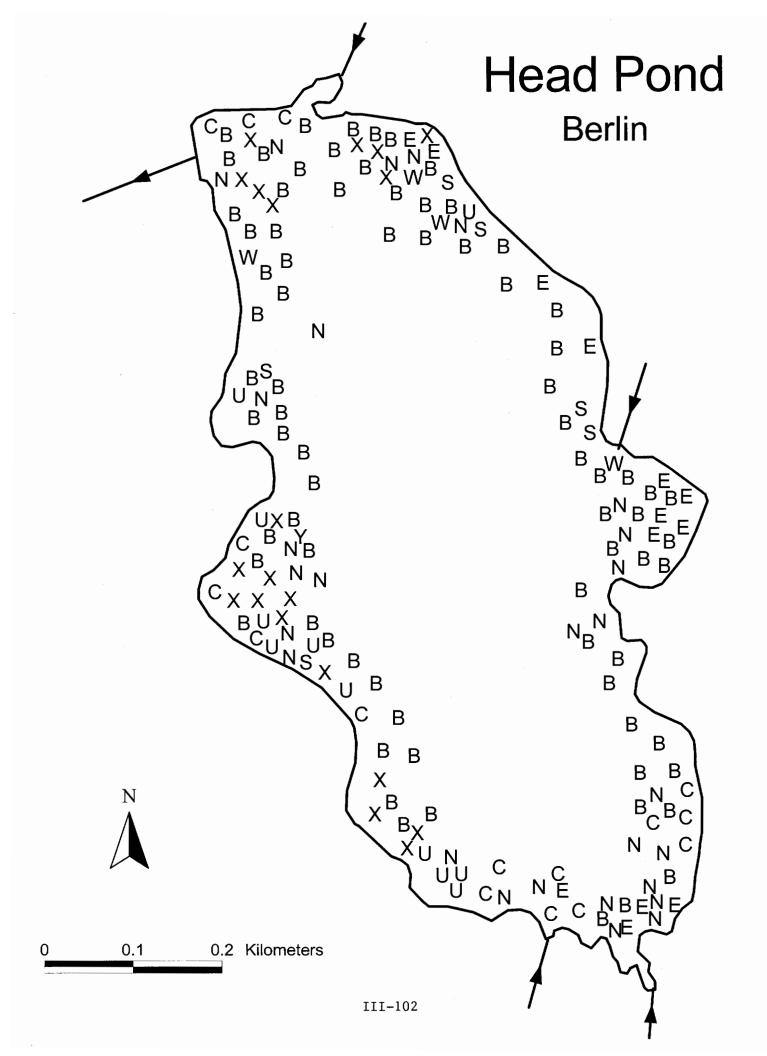
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	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	23.0	7.3	85 %
	1.0	22.9	7.3	83 %
	2.0	22.8	7.3	83 %
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SECCHI DISK (m): 2.1 VOB COMMENTS:

BOTTOM DEPTH (m): 2.1

TIME: 1145

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: HEAD POND TOWN: BERLIN DATE: 08/22/2001

		TOWN: DEREIN DA	IE. 00/22/2001	
Key	PLANT	NAME	ABUNDANCE	
кеу	GENERIC	COMMON		
В	Brasenia schreberi	Water shield	Abundant	
E	Eriocaulon septangulare	Pipewort	Scattered	
U	Utricularia	Bladderwort	Common	
s	Sparganium	Bur reed	Scattered	
N	Nymphaea	White water lily	Scattered	
W	Potamogeton	Pondweed	Common	
X		Sterile thread-like leaf	Abundant	
Y	Nuphar	Yellow water lily	Sparse	
С	Cyperaceae	Non-flowering sedge	Scattered	
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OVERALL ABUNDANCE: Very abundant

GENERAL OBSERVATIONS:

- 1. Bottom growth was thick wherever the bottom was visible but is not depicted on the map.
- 2. Wetlands bordered by tamaracks were located along the southern end of the pond. The northern inlet cove was non-navigable because of dense plant growth.